



**IMF FORECASTS:
PROCESS, QUALITY, AND COUNTRY PERSPECTIVES**

**DRAFT ISSUES PAPER FOR AN EVALUATION BY
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I. INTRODUCTION AND MOTIVATION

1. Twice a year the IMF flagship *World Economic Outlook (WEO)* presents the Fund's assessment of the prospects for the world economy.¹ It does so based in part on forecasts of GDP growth rates, inflation, current account balances and other macroeconomic quantities in the main economies and regions of the world. These forecasts incorporate the Fund's views about policy developments in member countries and about the linkages which transmit shocks between economies and regions through trade and financial channels.
2. An important feature in the *WEO* is its analysis of the potential medium-term threats to stability in the global economy and the policies it proposes to mitigate these threats. The underlying premises of the Fund's medium-term analysis and policy prescriptions will influence the short-term forecasts that are produced for each member country. Hence the analysis, the policy prescriptions, and the short-term forecasts must be viewed as part of an integrated process, and the quality of the forecasts will only be as good as the quality of the entire process.²
3. The Research Department, which is responsible for managing the *WEO* forecast process regularly (approximately every five years) commissions an outside expert to carry out a study of the accuracy of *WEO* forecasts. These studies have generally found that the IMF's forecasts are about as accurate as the forecasts of other international organizations and the private sector, a conclusion also drawn in a number of papers published in academic journals. The studies have also identified periods where the forecasts tended to be overly optimistic in the sense of predicting that real growth rates would be higher, and inflation rates lower, than what subsequently turned out to be the case. A common finding in most studies is that forecasts for program countries tend systematically to be too optimistic in the sense just described.
4. The importance of the forecasts of the IMF extends beyond presenting a view by the IMF staff of the likely evolution of the world economy in the *WEO*. Forecasts form an integral part of discussions with authorities in individual countries about policy choices in the context of regular Article IV consultations, and they condition the advice given by Fund staff during such discussions. The forecasts take on particular relevance in the design of programs in the context of the use of Fund resources.
5. Officials in member countries pay significant attention to the publication of the IMF's forecasts. In some cases—mainly small low-income countries—the IMF's forecasts are the

¹ While the discussion and policy analysis in the half-yearly *WEO* focuses on the major economies and regions in the world, it does contain numerical forecasts for each member country. For a subset of countries, forecasts are prepared two more times per year and published in *World Economic Outlook Update*.

² Boughton (2001) argues that the analysis in the *WEO* which discusses potential threats to medium-term stability has "become even more important than the short-term forecasts" (p. 227).

only ones available and are therefore an important source of information for policymakers. In others, the forecasts generate considerable investor interest and can impact asset prices and capital flows. Frequently authorities consult the IMF's forecasts because they provide important information about economic conditions in trading partners. As already noted, the forecasts also tend to set the tone for discussions about policy options and program conditions.

6. For all these reasons, the quality and transparency of the analysis and forecasts produced in the context of both the *WEO* and Article IV consultations is vital in order to maintain the credibility of the IMF's policy advice in the context of surveillance as well as in the context of the use of Fund resources.

II. OBJECTIVE AND SCOPE

7. In view of their importance for member countries and for the operations and credibility of the Fund, the IEO has decided to undertake an evaluation of the IMF's forecasts. The objective of the evaluation is threefold: to describe the process of generating the forecasts within the Fund, and in so doing assess whether it is designed so as to elicit the best possible result; to take stock of what is known about the quality of IMF forecasts and the sources of any weaknesses that may exist; and to determine how users of the forecasts within the Fund, in the private sector, and among member country officials perceive the usefulness of the types of forecasts being published and the form in which they can be accessed. The overall goals are to make the forecast process better known, and hence more credible, outside the Fund and to identify areas where improvements might be possible.

8. The evaluation will focus on the forecasts for the principal macroeconomic variables published in the *World Economic Outlook* and in Article IV country reports. It will cover the entire membership, and the analysis will be stratified according to regions and stage of economic development.

A. The Forecast Process

9. The evaluation will document the process by which the IMF's forecasts are generated, and ask whether it is well understood by country authorities and IMF staff. Forecasts for the *WEO* involves a combination of model-based forecasts, judgment, iterations between country desks and the *WEO* team in the research department. This process is necessary in part to introduce some degree of consistency across countries in conditioning assumptions, in part to permit country desks to give their input rather than relying on a centralized model, and in part to provide consistency between top-down and bottom up forecasts of global economic activity and to try to ensure that some obvious constraints, e.g., that the global current account balance is zero, are at least approximately respected.

10. The evaluation will also investigate the process by which forecasts are constructed at the country desk level in the context of both the Article IV consultations and the *WEO*

forecast rounds. It will document the degree of reliance on models vs. judgment, the relationship between country officials and country desk officer in the forecast process, the interaction between country desk officers within a Division/Area Department, etc. It will discuss the appropriateness of the chosen forecast methodology in relation to the country context, and the level of coordination within and across departments in the preparation of country forecasts.

11. The discussion in the *WEO* focuses principally on the outlook for the current and coming year. Yet, for some purposes forecasts at a longer horizon are also important. For example, assessments of debt sustainability require some projections of the evolution of GDP at a medium to long term horizon. Moreover, the short-term dynamics of an economy depends on the current level of output relative to the full-employment level, i.e. on the output gap. Timmermann (2006) conjectures that some of the errors in IMF short-term forecasts could be due to the, as of then, prevalent assumption that the output gap would be closed within five years. The evaluation will document the process by which the medium-term (up to five years) forecasts of GDP growth are constructed and used.

12. Finally, the evaluation will compare the process used in the IMF with those used in other organizations which produce multi-country economic forecasts, e.g., the OECD, the World Bank, and Federal Reserve Board.

B. Forecast Quality

13. The quality of forecasts is an important criterion for judging their usefulness. Quality encompasses a number of desirable characteristics: e.g., “small” forecast errors, unbiasedness, lack of persistence (serial correlation) in forecast errors, and efficient use of available information. Underperformance on any of these criteria could be due to the properties of the models used, the choice of conditioning assumptions, the incorporation of judgment, the process for ensuring global consistency, etc.

14. The quality of the analysis which complements the numerical forecasts is also an important criterion for judging their usefulness for policy analysis and prescriptions.

15. Drawing on existing studies the evaluation will document what has been found in the literature with respect to the quality of IMF forecasts. Particular attention will be given to studies regularly commissioned by the IMF since the late 1980s. Four such studies have been published and a fifth is in the final stages of completion.³ The evaluation will seek to determine whether and how the main conclusions from these studies have influenced the forecast process subsequent to the each report. It will also assess the nature of the terms of reference of the commissioned studies.

³ See Artis (1988, 1996); Barrionuevo (1993); Timmermann (2006, 2007); and a forthcoming report by Faust.

16. The evaluation will also take stock of what is known about the accuracy of macroeconomic projections in the context of IMF programs. These projections are based in part on the policy analysis and conditions contained in the terms of the program, and the evaluation will assess the extent to which this practice influences the ex post accuracy of the forecasts.

C. Country Perspectives

17. Finally the evaluation will assess the extent to which and how country authorities and analysts in the private sector utilize IMF forecasts in their own analysis and projections, and whether there is scope for enhancing the usefulness of the IMF's work in this respect.

D. Evaluation Questions

18. The evaluation will thus ask the following specific questions:

- a) What is the process of making forecasts in the IMF? Is it well suited for the purpose it is intended to serve? Is it well understood?
- b) How are revisions of *WEO* forecasts influenced by exogenous shocks in the world economy and in reassessments of national economic policies?
- c) What is the quality of the IMF's forecasts? Are there systematic differences in the quality of the forecasts between countries in different regions and between countries of different level of economic development? How do the forecasts of the IMF compare with those of other institutions providing multi-country forecasts?
- d) How do country authorities and private sector economists use the IMF's forecasts in their own policy making and analysis? What could make the forecasts more useful?

III. METHODOLOGY

19. *Process.* Boughton (1997, 2001) provide historical perspectives on the evolution of IMF forecasts. This evaluation will build on these studies but will focus on the nature of the current process. The description of this process will be informed by desk work based on internal and publicly available IMF documents combined with interviews of the *WEO* team, departmental *WEO* coordinators, and desk officers. It will thus cover the entire process from the central decisions made by the Research Department related to conditioning information for country forecasts and the global economic outlook, to decisions made at the departmental level about regional economic developments, and finally to the actual forecasts made at the country desk level. Interviews will also be conducted with relevant officials from other organizations producing multi-country economic forecasts (e.g., ADB, Federal Reserve

Board, OECD, World Bank) in order to compare the processes in these organizations with that used at the IMF.

20. *Quality.* The assessment of the quality of the forecasts will be carried out primarily by means of a thorough survey of the existing literature.⁴ An important part of this literature consists of studies commissioned by the IMF to evaluate IMF forecasts (See Artis, 1988, 1996; Barrionuevo, 1993; Timmermann, 2006, 2007; and a forthcoming report by Faust.). A background paper to IEO (2006) provides additional information.⁵

21. *Country and private-sector perspectives:* These will be based on a survey and, if needed, follow-up interviews. The objective of the survey is to document how country officials and private sector analysts use IMF forecasts in order to assess whether the information provided by the Fund related to the forecasts is appropriately tailored to their needs.

⁴ Annex 1 contains a partial list of relevant studies.

⁵ Kucur and Takagi (2006).

Annex 1. Selected References Related to the Quality of IMF Forecasts

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